



July 1999 Time Local/ Path Length Number of Estimated Persons Width Damage **CONNECTICUT**, Northeast CTZ002 Hartford 0600EST 1500EST 05 0 0 **Record Heat** Bermuda high pressure brought a southwest flow of hot and humid air to Connecticut during the July 4th holiday weekend. The high temperature of 99 degrees on July 5th at Bradley International Airport in Windsor Locks broke the previous record high for the date of 98 degrees, which was set in 1955. The low temperature of 77 degrees set a new record high minimum temperature for the date. The previous record was 74 degrees which was set in 1919. **CTZ002** Hartford 0600EST 1800EST 0 0 **Record Heat** 06 For the second day in a row, record high temperatures were set at Bradley International Airport in Windsor Locks. The high of 99 degrees broke the previous record high temperature of 98 degrees, which was set in 1911. **Tolland County** Herbron 06 2150EST Thunderstorm Wind (G50) Thunderstorms moved across northern Connecticut in advance of a strong cold front. For the fourth day in a row, temperatures soared well up into the 90s along with high humidity. Although most of the severe weather moved across adjacent parts of Massachusetts, one severe thunderstorm in Hebron downed power lines and large tree limbs. **CTZ002** Hartford 1426EST O 0 Record Warmth The high temperature of 97 degrees at Bradley International Airport in Windsor Locks broke the previous record high for the date of 96 degrees, which was set in 1982 and earlier years. **Hartford County** Simsbury to Bloomfield 18 1605EST 1610EST 0 0 Thunderstorm Wind (G55) **Tolland County** 1710EST Columbia 18 Thunderstorm Wind (G55) Windham County Willimantic 18 1715EST 0 Thunderstorm Wind (G55) **Hartford County** 18 1805EST O 0 Thunderstorm Wind (G50) Marlborough **Tolland County** Herbron 18 1805EST Thunderstorm Wind (G50) Severe thunderstorms moved across northern Connecticut ahead of a cold front. The storms developed over the Farmington Valley, knocking down trees in Simsbury and Bloomfield, before racing southeast across Tolland and Windham Counties. Hebron, in southern Tolland County, received the brunt of the storms, where several trees were downed and some houses were struck by lightning. A portion of Route 85 was closed for more than 6 hours after a tree fell, taking down power lines and blocking the road. Just over 21,000 customers throughout the state lost power due to the storms. **Tolland County**

Coventry	19	1235EST	0	0	Thunderstorm Wind (G55)
Windham County Ashford to Windham	19	1250EST 1253EST	0	0	Thunderstorm Wind (G55)
Tolland County Storrs to Stafford	19	1255EST 1300EST	0	0	Thunderstorm Wind (G50)





Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Numb Pers Killed	per of sons Injured	Estimated Damage Property Crops	July 1999 Character of Storm
CONNECTICUT, No	rtheast							
Windham County Canterbury	19	1314EST			0	0		Thunderstorm Wind (G50)
Windham County Plainfield	19	1335EST			0	0		Lightning
Hartford County Granby to Windsor Locks	19	1539EST 1545EST			0	0		Thunderstorm Wind (G52)
Windham County Woodstock	of the and po as the	1630EST e thunderstorms m hardest hit areas l ower lines downed	had just begu from thunder ough. Just o	n to recover rstorm winds over 1,000 cu	from the particle. Bradley Instruments in	revious da nternation Hartford,	y's storms, including (al Airport, in Windsor Tolland, and Windhar	Thunderstorm Wind (G50) ucing wind gusts over 60 mph. Some Coventry where there were many trees Locks, reported a wind gust to 60 mph in Counties were without power at the
Windham County								
Moosup to Sterling	about		The Moosup					Thunderstorm Wind (G55) napped utility poles, cutting power to ng, thunderstorm winds toppled a tree
Windham County Eastford	24	1402EST			0	0		Hail(0.75)
Hartford County New Britain to Manchester	24	1520EST 1543EST			0	0		Hail(1.50)
Hartford County New Britain to Manchester	24	1520EST 1549EST			0	0		Thunderstorm Wind (G55)
Tolland County Bolton to West Willington	24	1555EST 1613EST			0	0		Hail(1.75)
Tolland County Andover to Coventry	24	1607EST			0	0		Thunderstorm Wind (G55)
Windham County Pomfret	Counti as golf the sto	ies experienced the falls. Newington	e most damag n, in Hartford fell onto the	ge, with many I County, wa roof of a park	y reports of s especially ked van, lig	downed to hard hit. ht poles w	rees, large tree limbs, a Just over 10,000 cust ere damaged, and the s	Hail(1.00) rn Connecticut. Hartford and Tolland and power lines, as well as hail as large tomers lost power during the height of steeple of a church was knocked down.

MASSACHUSETTS, Central and East

Plymouth County

An isolated severe thunderstorm downed large limbs in Middleboro.





Time Path Path Number of Estimated Local/ Length Width Persons Damage
Location Date Standard (Miles) (Yards) Killed Injured Property Crops Character of Storm

MASSACHUSETTS, Central and East

Suffolk County

Winthrop 04 0740EST 0 0 Thunderstorm Wind (G50)

Bristol County

Fall River 04 0830EST 0 0 Lightning

An isolated severe thunderstorm downed several trees in Winthrop. Other thunderstorms with frequent lightning moving across southeast Massachusetts started a building fire in Fall River.

MAZ015 Suffolk

05 0000EST 2 0 Record Heat 1800EST

Bermuda high pressure brought a southwest flow of hot and humid air to Massachusetts during the holiday weekend. The temperature only fell to a low of 81 degrees at Logan International Airport in Boston on July 5th, which was a record minimum high temperature for the date. The previous record was 79 degrees which was set in 1919. Although the high temperature of 98 degrees on the 5th did not break a record in Boston, the spell of heat and high humidity resulted in two deaths and record electricity usage in Boston. An 86-year old woman died from heat exhaustion after being rushed to the hospital from a private nursing home, and a 64-year old woman, also a resident of a Boston nursing home, died of similar causes later that day. F86PH, F64PH

Franklin County Shelburne to Northfield	06	1520EST 1545EST	0	0	Thunderstorm Wind (G60)
Hampshire County Plainfield to Hatfield	06 M29V	1522EST 1552EST	1	2	Thunderstorm Wind (G60)
Worcester County Athol	06	1540EST	0	0	Thunderstorm Wind (G60)
Worcester County Templeton to Harvard	06	1555EST 1618EST	0	0	Thunderstorm Wind (G60)
Middlesex County Pepperell to Tyngsboro	06	1610EST 1615EST	0	0	Thunderstorm Wind (G56)
Middlesex County Boxborough to Wakefield	06	1630EST 1702EST	0	0	Thunderstorm Wind (G65)
Middlesex County Wilmington	06	1635EST	0	0	Hail(0.88)
Essex County Beverly	06	1645EST	0	0	Thunderstorm Wind (G52)
Norfolk County East Walpole to Avon	06	1715EST 1717EST	0	0	Hail(0.75)
Norfolk County Walpole	06	1717EST	0	0	Thunderstorm Wind (G50)
Plymouth County Brockton	06	1723EST 1835EST	0	0	Hail(2.75)
Plymouth County Whitman to Middleboro	06	1745EST 1830EST	0	0	Thunderstorm Wind (G60)





		Time Local/	Path Length	Path Width	Numb Pers	oer of sons	Estimat Dama	ed ge		July 1999
Location	Date	Standard	(Miles)	(Yards)	Killed	Injured	Property	Crops	Character of Storm	
MASSACHUSETTS	S, Central	and East								
Norfolk County Avon	06	1755EST			0	0			Hail(0.75)	
Plymouth County Cedarville	06	1900EST			0	0			Hail(0.75)	
Barnstable County Sandwich	06	1910EST			0	0			Thunderstorm Wir	nd (G55)
Middlesex County Holliston	06	2058EST			0	0			Thunderstorm Wir	nd (G60)
Norfolk County Weymouth	06	2130EST			0	0			Thunderstorm Wir	nd (G70)
Plymouth County Hingham to Abington	06	2145EST			0	0			Thunderstorm Wir	nd (G60)

Severe thunderstorms swept across Massachusetts in advance of a strong cold front. For the fourth day in a row, temperatures soared well up into the 90s across the Bay State, along with high humidity. The thunderstorms arrived in two lines: one from mid-afternoon into early evening with winds clocked as high as 82 mph, and the second during the late evening with winds estimated over 80 mph and large hail. Damage was widespread from the east slopes of the Berkshires to the North and South Shore communities around Boston. In the wake of the storms, tens of thousands of electric customers were left without power, and in some communities, it took several days for power to be restored.

In Hampshire County, a 29-year old man was killed and two men were injured when a large tree branch fell on their car on Route 5 in Hatfield while returning home from a fishing trip. Wind gusts as high as 65 mph were reported in North Hatfield as the storms passed. There were countless reports of downed trees, wires, and telephone poles throughout western and central Massachusetts, where the most widespread damage occurred during mid to late afternoon.

In eastern Massachusetts, the storms caused the most damage during the late afternoon and early evening when there were many reports of downed trees, tree limbs, and power lines. In Middlesex County, wind gusts were estimated to be over 70 mph. Several five to ten ton air conditioning units were blown off the roof of a building in Ashland, and part of the roof was torn off. Large hail was reported throughout much of Norfolk and Plymouth Counties early in the evening. Hailstones as large as baseballs fell in Brockton, covering Milton Street and damaging cars. In Chatham, on Cape Cod, a 13-year old boy was lowering the sail on his small fiberglass sailboat on the shore of Oyster Pond when thunderstorm winds blew him and the boat about 200 yards into the middle of the pond. The boy was not injured. Later in the evening, the second round of severe thunderstorms caused more sporadic wind damage to trees and power lines. The worst damage occurred in Weymouth, when a microburst caused extensive wind damage near Whitmans Pond. A storm survey conducted the next day by the National Weather Service concluded wind speeds reached around 80 mph, which downed large trees, power lines, damaged homes, and made some roads impassable from fallen debris. Damage was also noted farther south into Abington and Hanson.

MAZ015 Suffolk

14 0000EST 0 0 Record Cold

The low temperature at Logan International Airport of 55 degrees tied the record low for the date which was set in 1937.



Shirley to

Wakefield

Essex County Rowley to Peabody

Essex County Andover to Peabody

Middlesex County Wakefield

National Weather Service Storm Data and Unusual Weather Phenomena



Thunderstorm Wind (G50)

Thunderstorm Wind (G75)

Hail(1.00)

Hail(0.75)

July 1999 Time Local/ Path Length Path Number of Estimated Width Persons Damage **MASSACHUSETTS, Central and East MAZ016** Eastern Norfolk 1355EST 0 0 **Record Warmth** The high temperature of 94 degrees at the Blue Hill Observatory in Milton tied the record high for the date, which was set in 1983 and earlier years. MAZ015>016 Suffolk - Eastern Norfolk 0 1329EST 1350EST O **Record Warmth** 17 The high temperature at Logan International Airport in Boston of 98 degrees tied the record high for the date which was set in 1977. At the Blue Hill Observatory in Milton, the high temperature of 95 degrees tied the record high for the date, which was set in 1997. **MAZ016** Eastern Norfolk **Record Warmth** The high temperature at the Blue Hill Observatory in Milton of 96 degrees tied the record high for the date, which was set in 1991. **Franklin County** Bernardston 1550EST Thunderstorm Wind (G55) An isolated severe thunderstorm downed trees in Bernardston. Middlesex County Billerica 23 0010EST 0 Thunderstorm Wind (G50) **Plymouth County Plymouth** 23 1545EST 0 0 Hail(0.75) **Bristol County Taunton** 23 1630EST Thunderstorm Wind (G50) An early morning severe thunderstorm in northeast Massachusetts downed large tree limbs in Billerica, near Concord Road and Treble Cove Road. Later that day, severe thunderstorms moved across southeast Massachusetts, bringing damaging winds and large hail. Dime size hail was reported in Plymouth, near the town line with Carver, and two trees were downed by thunderstorm winds in Taunton. **Essex County** Haverhill to 1546EST 1618EST 0 24 0 Hail(1.50) Newburyport **Worcester County** 24 1600EST O Worcester 0 Lightning **Worcester County** 1611EST Northborough 24 0 0 Hail(0.75) **Worcester County** Northborough to 24 1615EST 0 0 Thunderstorm Wind (G50) Shrewsbury Middlesex County Littleton to 1617EST 1636EST 24 0 0 Hail(1.00) Acton **Middlesex County**

0

0

0

0

0

1636EST

1710EST

1700EST 1707EST

1705EST

1710EST 1735EST

24

24

24

24





Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Numl Per Killed	oer of sons Injured	Estin Dar Property	nated nage Crops	July 1999 Character of Storm
MASSACHUSETTS,	Central	and East							
Hampden County									
Chicopee	24	1745EST			0	0			Hail(0.75)
Worcester County									
Barre	24	1745EST			0	0			Thunderstorm Wind (G50)
Essex County									
Amesbury to Groveland	24	1913EST 1925EST			0	0			Thunderstorm Wind (G52)
Norfolk County									
Dedham	24	2005EST			0	0			Thunderstorm Wind (G50)
Suffolk County									
(Bos)Logan Intl Arpt	24	2045EST			0	0			Thunderstorm Wind (G64)
Norfolk County									
Wrentham	24	2220EST			0	0			Thunderstorm Wind (G50)
	Sever	e thunderstorms b	rought damag	ing winds a	nd large hai	l to much	of central	and eastern	Massachusetts The hardest hit areas

Severe thunderstorms brought damaging winds and large hail to much of central and eastern Massachusetts. The hardest hit areas were in Boston's North and South Shore communities, where there were countless reports of downed trees and power lines, and hail as large as ping pong balls. In Essex County north of Boston, a microburst with wind speeds estimated between 80 and 100 mph caused extensive damage in Middleton and Peabody. Many large trees were totally uprooted, large pine trees were snapped off above the ground, and shingles were blown off two houses. The strongest winds occurred in Middleton, in the area of Lake Street between Wills Hill Reservoir and Middleton Pond. Another severe thunderstorm produced a wind gust to 74 mph at Logan International Airport in Boston. During the height of the storms, thousands of people were estimated to have lost power throughout the Bay State.

Middlesex County Sudbury to Newton	25	1235EST 1325EST	0	0	Hail(1.00)
Middlesex County Wayland	25	1301EST	0	0	Thunderstorm Wind (G50)
Worcester County Harvard	25	1315EST	0	0	Hail(0.75)
Suffolk County Brighton	25	1333EST	0	0	Hail(0.75)
Suffolk County (Bos)Logan Intl Arpt	25	1348EST	0	0	Thunderstorm Wind (G50)
Middlesex County Bedford to Waltham	25	1400EST	0	0	Lightning
Plymouth County Brockton	25	1400EST 1500EST	0	0	Heavy Rain
Plymouth County Brockton to Hanson	25	1425EST	0	0	Hail(1.25)
Plymouth County East Bridgewater	25	1430EST	0	0	Thunderstorm Wind (G50)
Norfolk County Stoughton	25	1505EST	0	0	Hail(0.75)
Essex County Haverhill to West Newbury	25	1518EST	0	0	Thunderstorm Wind (G50)





		Time	Path	Path	Numb		Estin	nated		July 1999
		Local/	Length	Width	Pers	sons	Daı	nage		
Location	Date	Standard	(Miles)	(Yards)	Killed	Injured	Property	Crops	Character of Storm	

MASSACHUSETTS, Central and East

Norfolk County Walpole	25	1545EST	0	0	Thunderstorm Wind (G50)
Plymouth County Abington	25	1555EST	0	0	Thunderstorm Wind (G50)

Severe thunderstorms brought damaging winds and large hail to central and eastern Massachusetts for the second day in a row. The hardest hit areas were once again in the suburbs of Boston, especially to the south, where there were many reports of downed trees and power lines. Hail as large as quarters covered the ground in spots. Brockton, in Plymouth County, was especially hard hit. Large hail the size of ping pong balls damaged cars, and torrential rainfall of two inches in one hour resulted in street flooding. A storm spotter reported two to three feet of water on Main and Belmont streets. Several house fires were started by lightning in Middlesex County. In Boston, water flooded the mezzanine level of South Station, closing the MBTA Red Line Station for about an hour. Service was also interrupted on the MBTA Green Line for about an hour, after a tree fell near Brookline Hills station. Logan International Airport recorded a wind gust to 58 mph in a thunderstorm, a day after measuring a wind gust to 74 mph. An estimated 25,000 customers in central and eastern Massachusetts were left without power.

Barnstable County					
Mashpee to Sandwich	26	0600EST 0730EST	0	0	Lightning
Worcester County					
Spencer	26	1225EST	0	0	Thunderstorm Wind (G50)
Worcester County					
Spencer	26	1345EST	0	0	Lightning
Worcester County					
Clinton	26	1800EST 1900EST	0	0	Lightning

An isolated severe thunderstorm in Spencer downed trees on Northwest Road. Lightning strikes from other thunderstorms caused extensive damage in Worcester County and on Cape Cod. Early in the day, the thunderstorm that had earlier dropped quarter size hail in Rhode Island weakened, but lightning ignited several house fires in Sandwich and Mashpee, and knocked out power to about 10,000 customers on the Cape. In Worcester County, afternoon and evening thunderstorms with frequent lightning ignited an apartment building fire in Spencer, and a house fire in Clinton.

Worcester County				
Spencer	29	1850EST	0 0	Thunderstorm Wind (G50)
Franklin County Ashfield	29	2145EST	0 0	Thunderstorm Wind (G50)
Franklin County Rowe	29	2200EST	0 0	Thunderstorm Wind (G50)
Franklin County				
Hawley	29	2221EST	0 0	Thunderstorm Wind (G50)
		e thunderstorms produced wind date, Ashfield, Rowe, and Hawley.	mage in Franklin and Worcester Co	ounties. Large tree branches and wires were downed in
Worcester County				
Leominster to Fitchburg	30	1528EST 1543EST	0 0	Lightning
Hampden County				
Palmer	30	1847EST 1901EST	0 0	Hail(0.75)

An isolated severe thunderstorm produced dime size hail in Palmer. Earlier that day, lightning strikes from non-severe





July 1999 Time Local/ Standard Path Length (Miles) Number of Persons Killed Injured Estimated
Damage
erty Crops Path Width (Yards) Character of Storm Location

MASSACHUSETTS, Central and East								
		erstorms in Leominster and Fitchburg were I damage to chimneys and roofs of several		for starting two ho	ouse fires and at least one brush fire. Lightning also			
NEW HAMPSHIRE, S	Souther	<u>n</u>						
Hillsborough County Nashua	0 0 Lightning Lightning struck the Boston Air Route Traffic Control Center in Nashua, briefly knocking out the primary radar and radio communications systems. Controllers were forced to rely on a backup system for nearly three hours, which caused widespread delays during the holiday weekend. During that time, all jet aircraft were restricted from taking off at airports throughout New England, including Logan International Airport in Boston. The effects of the outage and slower backup system idled planes throughout the country that were headed for destinations in New England. Flights inbound from Europe were rerouted around the affected airspace.							
Cheshire County Gilsum to Winchester	06	1507EST 1545EST	0	0	Thunderstorm Wind (G60)			
Hillsborough County Amherst to Nashua	06 M61P	1545EST 1611EST H	1	0	Thunderstorm Wind (G71)			
	Severe thunderstorms moved across southern New Hampshire in advance of a strong cold front, resulting in widespread wind damage in Cheshire and Hillsborough Counties. For the fourth day in a row, temperatures peaked well up into the 90s along with high humidity. In Cheshire County, the storms downed trees and wires in Gilsum, Jaffrey, and Winchester. Trees and wires were also downed throughout much of Hillsborough County, including Mason, Nashua, Hudson, and Pelham. A Skywarn spotter in Amherst measured a wind gust to 82 mph as the storms moved through. About 6,600 customers in both counties lost power.							
Hillsborough County								
Manchester	24 A seve	1520EST ere thunderstorm ahead of a cold front production and the cold front production are the cold front production.	0 duced quarter	0 size hail in Manch	Hail(1.00) nester.			
Hillsborough County Goffstown	25 A seve	1340EST ere thunderstorm produced dime size hail i	0 n Goffstown.	0	Hail(0.75)			
Cheshire County Jaffrey	27 An iso	1915EST olated severe thunderstorm near Thorndike	0 Pond downed	0 I trees and wires, i	Thunderstorm Wind (G50) ncluding one tree onto a car			
Hillsborough County Mt Vernon	30 An iso	1630EST olated severe thunderstorm produced quarte	0 er size hail in	0 Mont Vernon, and	Hail(1.00) over 2 inches of rain			
RHODE ISLAND								
Newport County Tiverton	04 Thund	0800EST lerstorms with frequent lightning moving ϵ	0 across Rhode I	0 (sland started a ho	Lightning use fire in Tiverton			



Barrington

25

1405EST

National Weather Service Storm Data and Unusual Weather Phenomena



July 1999 Time Local Path Length Path Number of Estimated Width Persons Damage RHODE ISLAND RIZ004 **Eastern Kent** 05 0000EST 0 0 Record Heat Bermuda high pressure brought a southwest flow of hot and humid air to Rhode Island during the holiday weekend. The high temperature of 98 degrees at T.F. Green State Airport in West Warwick tied the record high for July 5th which was first set in 1919. Also, the temperature only fell to a low of 78 degrees on the 5th, which set a record high minimum temperature for the date. The previous record was 77 degrees which was also set in 1919. RIZ004 **Eastern Kent** 0 **Record Heat** 1800EST For the second day in a row, temperatures at T.F. Green State Airport in West Warwick tied the record high for the date. The high of 97 degrees equaled the record high for July 6th, which was set in 1911. RIZ004 **Eastern Kent** 14 Record Cold The low temperature at T.F. Green State Airport dropped to 53 degrees, which tied the record low for the date which was set in 1937. RIZ004 **Eastern Kent** 17 1350EST **Record Warmth** The high temperature at T.F. Green State Airport of 97 degrees tied the record high for the date, which was set in 1977. RIZ004 **Eastern Kent Record Warmth** The high temperature at T.F. Green State Airport of 98 degrees tied the record high for the date, which was set in 1982. **Providence County** Cumberland to Lincoln 19 1640EST 0 Thunderstorm Wind (G50) Severe thunderstorms moved across northern Rhode Island, after causing extensive wind damage in northern Connecticut. Thunderstorm winds downed five-inch diameter trees in Cumberland, blocking a roadway, and also downed power lines in Lincoli. **Kent County** 1900EST 1910EST 0 0 Coventry to West Greenwich 23 Thunderstorm Wind (G50) An isolated severe thunderstorm, which caused extensive damage in Windham County Connecticut, weakened somewhat as it entered Rhode Island, but still produced damage in Kent County. Trees and wires were downed on Susan Bowen Road and Fish Hill Road in Coventry, while in neighboring West Greenwich, trees, large branches, and wires were downed by thunderstorm winds **Kent County** West Greenwich 25 1315EST Hail(1.00) **Kent County** 25 1350EST Hail(1.00) Warwick **Bristol County**

Severe thunderstorms brought damaging winds and large hail to Rhode Island. Hail as large as quarters fell in West Greenwich and Warwick, while thunderstorm winds downed large branches in Barrington.

Thunderstorm Wind (G50)





Time Path Path Number of Estimated Local/ Length Width Persons Damage
Location Date Standard (Miles) (Yards) Killed Injured Property Crops Character of Storm

RHODE ISLAND

Newport County

Tiverton 26 0630EST 0 0 Hail(1.00)

An isolated early morning severe thunderstorm dropped quarter size hail in Tiverton. The large hail dented several cars, and broke holes into greenhouse roofs.